

REMARKS / DISCUSSION OF ISSUES

Claims 1 – 11 and 14 – 20 are pending in the application. Claims 1 and 11 are independent.

In the present response, the claims are not amended.

35 U.S.C. 102(e)

Claims 1 – 11 and 14 – 20 are rejected under 35 U.S.C. 102(e) over Cimini, JR. et al. (US Publication No. 20030133427, hereinafter “Cimini”).

Applicant submits that for at least the following reasons, claims 1 – 11 and 14 – 20 are patentable over Cimini.

For example, claim 1, in part, requires:

“determining an allocated transmission time for each of the wireless stations based on a set physical transmission rate, wherein each of the wireless stations has individually allocated transmission time based on the need of each of the wireless stations.”

Cimini, apparently discloses that the packet size is chosen inversely proportional to the node data rate (paragraph [0042]), and that packet size is set so that the maximum transmission times of different data rates are approximately the same (paragraph [0050]). In contrast, the claimed invention requires an allocated transmission time depends on a set physical transmission rate wherein each of the wireless stations has individually allocated transmission time based on the need of each of the wireless stations and thus the transmissions times of the wireless stations are not necessary approximately the same.

In the Office Action, page 3, the Office alleged that Cimini, Fig. 5, discloses an individual determination of allocated transmission time. Applicant respectively disagrees. Although Fig. 5 shows two different transmission times for nodes 1 and 2, having different times does not implies that they are determined individually. Cimini, in paragraph [0034], referring to Fig. 5, discloses a relationship between transmission times (t_1, t_2) and data rates (R_1, R_2) to illustrate the effect of overheads in IEEE 802.11 MAC performance. Since Cimini discloses that (t_1, t_2) and (R_1, R_2) are interrelated by

Equation (3), the times (t_1 , t_2) are not independent, and therefore, the times (t_1 , t_2) cannot be reasonably be interpreted as individually allocated times.

Furthermore, Cimini does not disclose that the individual allocation of transmission time depends on the need of the station. In the Office Action, pages 2 and 3, the Office alleged that it is inherent and therefore understood and/or known in the art to allocate different transmission time to plurality of devices based on their needs or transmission requirements, and that a communication network serves multiple or different terminals or users, and therefore allocates transmission time differently and/or individually based on each terminal's transmission criteria is known in the art. Applicant respectfully traverses such allegation.

Cimini is related to packet shaping for mixed rate 802.11 wireless networks. As noted in Cimini, paragraph [0031], a node obtains transmission time by a contention-based access mechanism (CSMA/CA). Thus a skilled person would understand that access to the wireless medium for transmission is sought by the node itself, not by allocation. There is no individual allocation of transmission time based on the need of each node in CSMA/CA, therefore, a skilled person would not be led to individually allocate transmission times for the node. For argument's sake, even if some sort of allocation is desired in order to meet the need of each individual station, there are many ways to allocate the access to the wireless medium, such as different bandwidths or different priorities for different stations. Since other ways of allocation are available, therefore, it is not inherent that allocation of transmission time is necessary to meet the need of the individual station. Applicant submits that it is not obvious for a skilled person to arrive at the claimed invention without the benefit of the impermissible hindsight.

Therefore, Cimini fails to disclose the claimed feature: determining an allocated transmission time for each of the plurality of wireless stations based on a set physical transmission rate, wherein each of the wireless stations has individually allocated transmission time based on the need of each of the wireless stations.

In view of at least the foregoing, Applicant submits that claim 1 is patentable over Cimini.

Similarly, independent claim 11, in part, requires:

"the access point allocates a transmission time for each of the wireless stations based on their transmission requirements at a set physical transmission rate that is fixed for the service interval, wherein each of the wireless stations has individually allocated transmission time based on the need of each of the wireless stations."

Applicant essentially repeats the above arguments for claim 1 and applies them to claim 11 pointing out why Cimini fails to disclose that an allocated transmission time depends on a set physical transmission rate and that individual transmission time is allocated based on the need. Therefore, claim 11 is patentable over Cimini.

Claims 2 – 10 and 14 – 20 are patentable because at least they respectively depend from claims 1 and 11, with each claim containing further distinguishing features.

Withdrawal of the rejection of claims 1 – 11 and 14 – 20 under 35 U.S.C. 102(e) is respectfully requested.

Conclusion

In view of the foregoing, Applicants respectfully request that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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